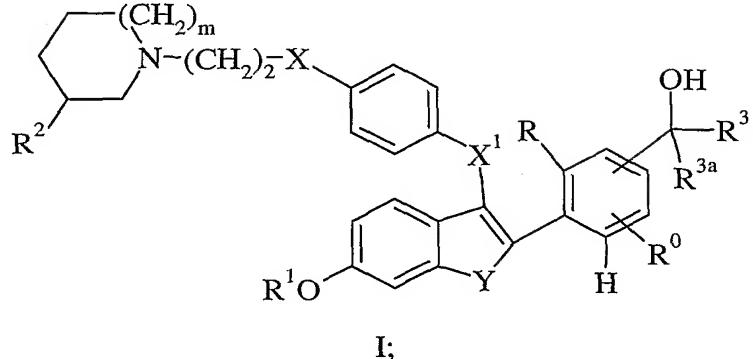


WE CLAIM:

1. A compound of formula I:



5 wherein:

m is 0, 1 or 2;

R⁰ is H, F or OH;

R¹ is H, SO₂(n-C₄-C₆ alkyl) or COR⁴;

R² is H or methyl provided that if m is 1 or 2, then R² must be H and that if m is

10 0, then R² must be methyl;

X is O or NR⁵;

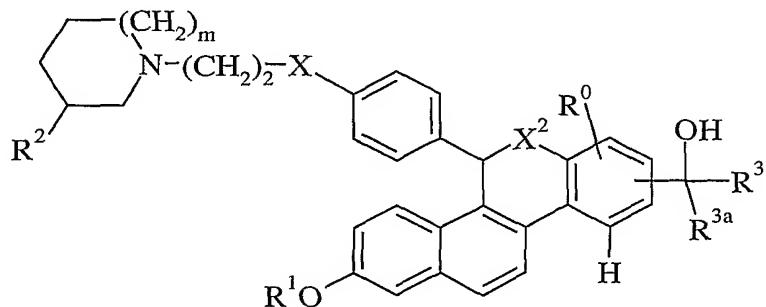
Y is S or CH=CH;

R⁴ is C₁-C₆ alkyl, C₁-C₆ alkoxy, NR⁶R⁷, phenoxy, or phenyl optionally substituted with halo;

15 R⁵ is H or C₁-C₆ alkyl;

R⁶ and R⁷ are independently H, C₁-C₆ alkyl or phenyl;

R is H and X¹ is O, CH₂ or CO or R combines with X¹ to form a moiety of the formula:



wherein X^2 is O or S; and

R^3 and R^{3a} are independently H or C₁-C₆ alkyl; or a pharmaceutical acid addition salt thereof.

5 2. The compound of claim 1 wherein R^0 is H.

3. The compound of claim 2 wherein R is H.

4. The compound of claim 3 wherein X and X^1 are O and m is 1 or 2.

10

5. The compound of claim 3 or claim 4 wherein R^1 is H or COR⁴ and R⁴ is C₁-C₄ alkyl, NHCH₃ or phenyl.

15

6. The compound of any one of claims 3-5 wherein R^1 is H.

7. The compound of any one of claims 3-6 wherein Y is CH=CH and m is 1.

8. The compound of any one of claims 3-7 wherein R^3 and R^{3a} are independently H or C₁-C₄ alkyl.

20

9. The compound of any one of claims 3-8 wherein R^3 and R^{3a} are independently H or methyl.

25

10. The compound of any one of claims 3-9 wherein the COHR³R^{3a} moiety is at position 4.

11. The compound of claim 2 wherein R combines with X^1 .

12. The compound of claim 11 wherein X and X^2 are O and m is 1 or 2.

30

13. The compound of claim 11 or claim 12 wherein R¹ is H or COR⁴ and R⁴ is C₁-C₄ alkyl, NHCH₃ or phenyl.

14. The compound of any one of claims 11-13 wherein R¹ is H and m is 1.

5

15. The compound of any one of claims 11-14 wherein R³ and R^{3a} are independently H or C₁-C₄ alkyl.

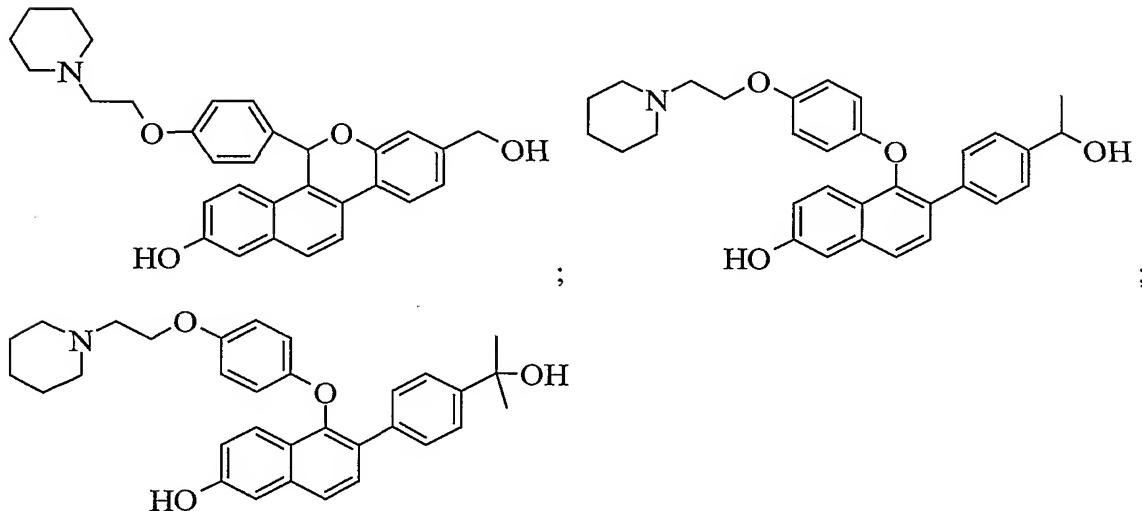
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16. The compound of any one of claims 11-15 wherein R³ and R^{3a} are independently H or methyl.

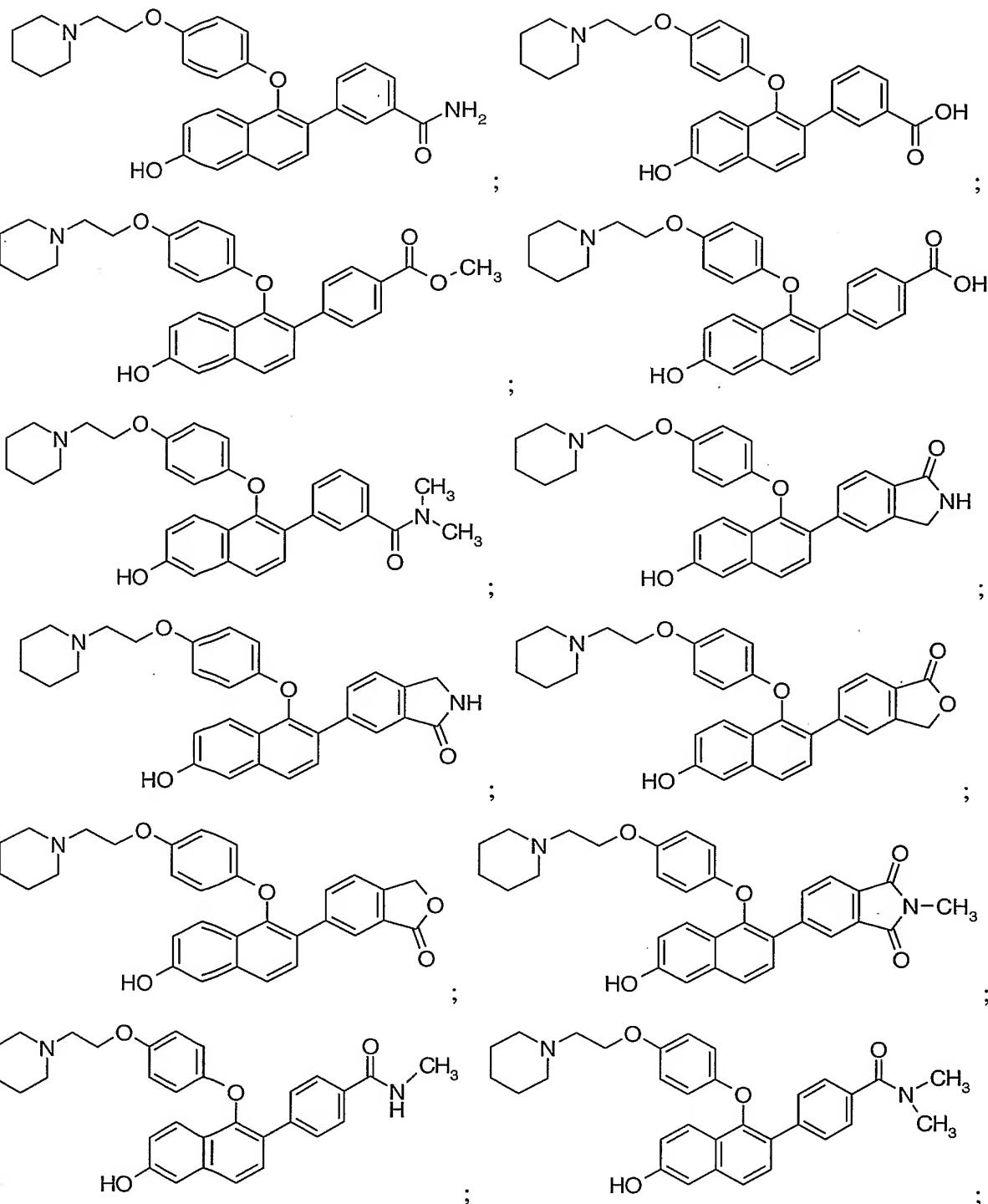
17. The compound of any one of claims 11-16 wherein the COHR³R^{3a} moiety is at position 4.

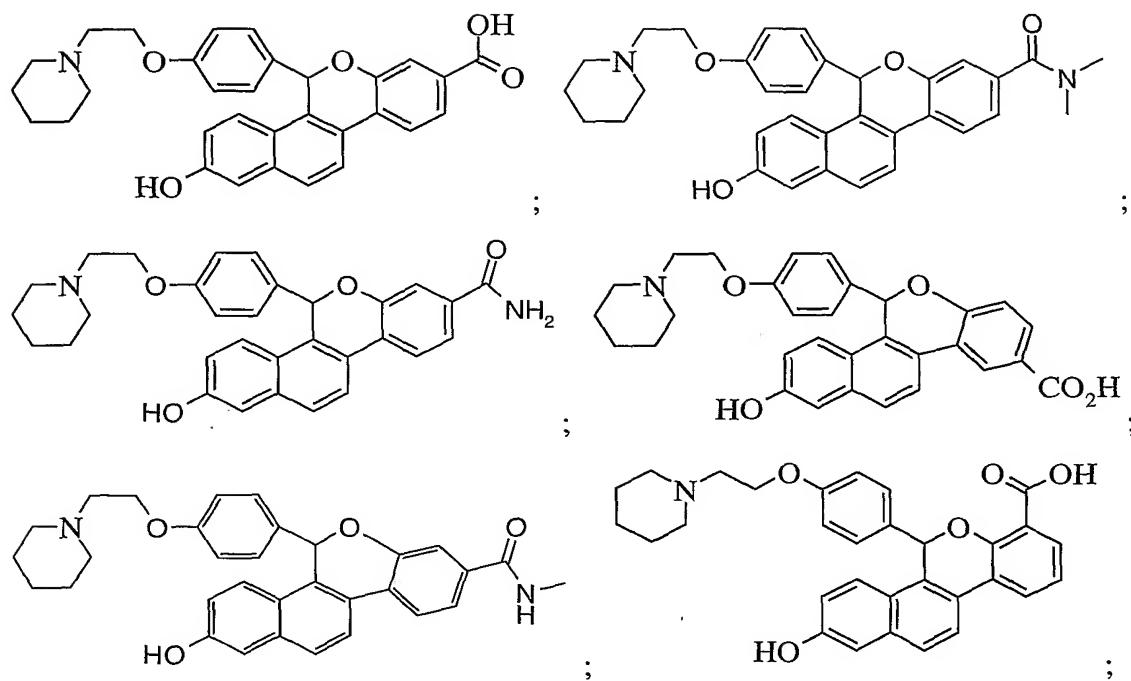
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18. A compound selected from the group consisting of:



or a pharmaceutical acid addition salt thereof; or a compound selected from the group consisting of:

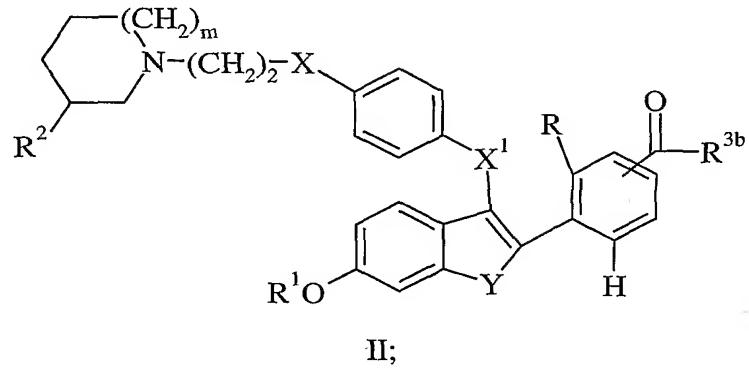




or a pharmaceutical salt thereof.

5

19. A compound of formula II:



wherein:

10 m is 0, 1 or 2;

R^1 is H, $SO_2(n-C_4-C_6$ alkyl) or COR^4 ;

R^2 is H or methyl provided that if m is 1 or 2, then R^2 must be H and that if m is 0, then R^2 must be methyl;

X is O or NR⁵;

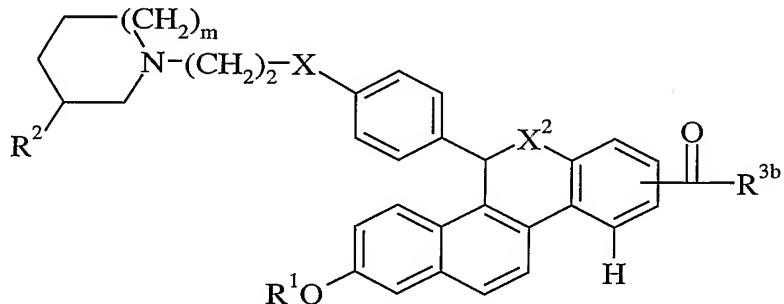
15 Y is S or $\text{CH}=\text{CH}$;

R^4 is C_1 - C_6 alkyl, C_1 - C_6 alkoxy, NR^6R^7 , phenoxy, or phenyl optionally substituted with halo;

R^5 is H or C_1 - C_6 alkyl;

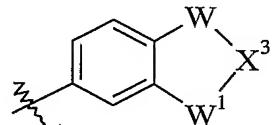
R^6 and R^7 are independently H, C_1 - C_6 alkyl or phenyl;

5 R is H and X^1 is O, CH_2 or CO or R combines with X^1 to form a moiety of the formula:



wherein X^2 is O or S;

10 R^{3b} is NR^8R^9 or OR^{10} or when R is H, R^{3b} may combine with the phenyl with which it is attached to form a moiety of the formula:



wherein W and W^1 are CH_2 or $C=O$ provided that at least one of W or W^1 must be $C=O$; and X^3 is NR^{11} or O; and

15 R^8 and R^9 are independently H or C_1 - C_6 alkyl or R^8 and R^9 may combine with the nitrogen to which they are both attached to form a morpholino, pyrrolidino or piperidino ring;

R^{10} and R^{11} are independently H or C_1 - C_6 alkyl; or a pharmaceutical salt thereof.

20 20. The compound of claim 19 wherein R^8 and R^9 are independently H or C_1 - C_6 alkyl.

21. The compound of claim 20 wherein X and X¹ are O and m is 1 or 2.

22. The compound of claim 20 or claim 21 wherein R¹ is H or COR⁴ and R⁴ is C₁-C₄ alkyl, NHCH₃ or phenyl.

5

23. The compound of any one of claims 20-22 wherein R¹ is H.

24. The compound of any one of claims 20-23 wherein Y is CH=CH.

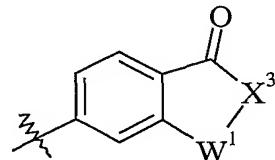
10 25. The compound of any one of claims 20-24 wherein the COR^{3b} moiety is at the 3- or 4-position.

26. The compound of any one of claims 20-25 wherein the COR^{3b} moiety is at the 4-position.

15 27. The compound of any one of claims 20-26 wherein R^{3b} is NR⁸R⁹ and R⁸ and R⁹ are independently H or C₁-C₄ alkyl.

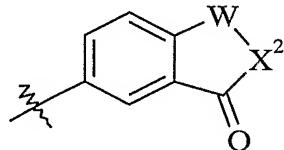
20 28. The compound of any one of claims 20-26 wherein R^{3b} is OR¹⁰ and R¹⁰ is H or C₁-C₄ alkyl.

29. The compound of any one of claims 20-26 wherein R is H and R^{3b} combines with the phenyl with which it is attached to form:



25 and W¹ is CH₂ and X³ is NR¹¹ and R¹¹ is H.

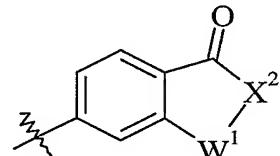
30. The compound of any one of claims 20-26 wherein R is H and R³ combines with the phenyl with which it is attached to form:



and R⁸ is H or C₁-C₄ alkyl.

5

31. The compound of any one of claims 20-26 wherein R is H and R³ combines with the phenyl with which it is attached to form:



and R⁸ is H or C₁-C₄ alkyl.

10

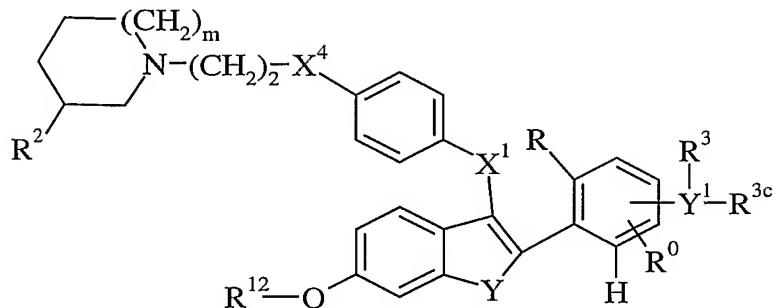
32. The compound of any one of claims 1-31 which is the hydrochloride salt.

15
33. A method of treating endometriosis comprising administering to a patient in need thereof an effective amount of a compound of any one of claims 1-32.

20
34. A method of treating uterine leiomyoma comprising administering to a patient in need thereof an effective amount of a compound of any one of claims 1-32.

35. A compound of any one of claims 1-32 for use in treating endometriosis and/or uterine leiomyoma.

36. A compound of formula III:



III;

wherein:

m is 0, 1 or 2;

5 R^0 is H, F or OH;

R^2 is H or methyl provided that if m is 1 or 2, then R^2 must be H and that if m is 0, then R^2 must be methyl;

Y is S or $\text{CH}=\text{CH}$;

Y^1 is $\text{C}=\text{O}$ or $\text{C}(\text{OH})$;

10 R³ is H or C₁-C₆ alkyl;

R^{3c} is absent or is H or C_1 - C_6 alkyl provided that if Y^1 is $C(OH)$, then R^{3c} is H or C_1 - C_6 alkyl and that if Y^1 is $C=O$, then R^{3c} is absent;

R^{12} is H, C₁-C₆ alkyl, benzyl, SO₂CH₃, SO₂(n-C₁-C₆ alkyl) or COR⁴:

x^4 is Ω or NR 13.

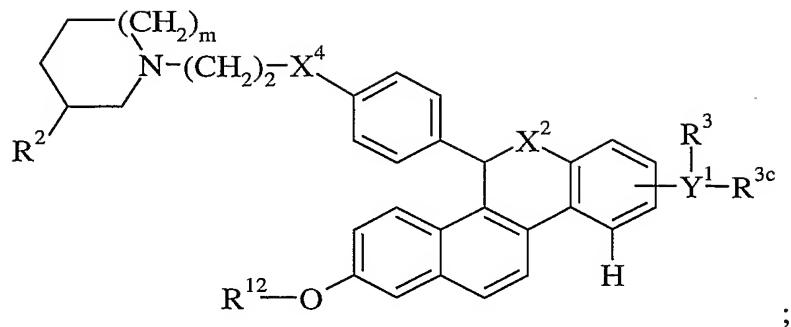
15 R^4 is C₁-C₆ alkyl, C₁-C₆ alkoxy, NR⁶R⁷, phenoxy, or phenyl optionally substituted with halo:

R^6 and R^7 are independently H, C₁-C₆ alkyl or phenyl;

R^{13} is H, C₁-C₆ alkyl or CO₂(C₁-C₆ alkyl); and

R is H and X¹ is O, CH₂ or CO or R combines with X¹ to form a moiety of the

20 formula:



wherein X^2 is O or S;

provided that if Y^1 is C(OH), then R^{12} is C_1 - C_6 alkyl, SO_2CH_3 or benzyl or X^4 is NR^{13} and R^{13} is $CO_2(C_1$ - C_6 alkyl); or an acid addition salt thereof.

5

37. The compound of claim 36 wherein R^0 is H.

38. The compound of claim 37 wherein R is H.

10 39. The compound of claim 38 wherein X^4 and X^1 are O and m is 1 or 2.

40. The compound of claim 38 or claim 39 wherein R^{12} is SO_2CH_3 , benzyl or methyl.

15 41. The compound of any one of claims 38-40 wherein Y is $CH=CH$ and m is 1.

42. The compound of any one of claims 38-41 wherein R^3 and R^{3c} are independently H or C_1 - C_4 alkyl.

20

43. The compound of any one of claims 38-42 wherein R^3 and R^{3c} are independently H or methyl.

25 44. The compound of any one of claims 38-43 wherein the $Y^1R^3R^{3c}$ moiety is at position 4.

45. The compound of claim 37 wherein R combines with X¹.

46. The compound of claim 45 wherein X⁴ is O and m is 1 or 2.

5 47. The compound of claim 45 or claim 46 wherein R¹² is SO₂CH₃, benzyl or methyl.

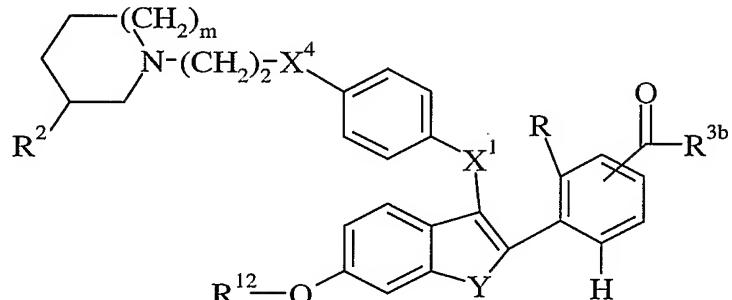
48. The compound of any one of claims 45-47 wherein X² is O and m is 1.

10 49. The compound of any one of claims 45-48 wherein R³ and R^{3c} are independently H or C₁-C₄ alkyl.

50. The compound of any one of claims 45-49 wherein R³ and R^{3c} are independently H or methyl.

15 51. The compound of any one of claims 45-50 wherein the Y¹R³R^{3c} moiety is at position 4.

20 52. A compound of formula IV:



IV;

wherein:

m is 0, 1 or 2;

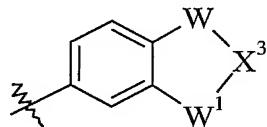
R^2 is H or methyl provided that if m is 1 or 2, then R^2 must be H and that if m is 0, then R^2 must be methyl;

Y is S or $CH=CH$;

Y^1 is $C=O$ or $C(OH)$;

5 R^{12} is H, C_1-C_6 alkyl, benzyl, SO_2CH_3 , $SO_2(n-C_4-C_6$ alkyl) or COR^4 ;

R^{3b} is NR^8R^9 or OR^{10} or when R is H, R^{3b} may combine with the phenyl with which it is attached to form a moiety of the formula:



wherein W and W^1 are CH_2 or $C=O$ provided that at least one of W or W^1 must be $C=O$; and X^3 is NR^{11} or O;

10 X^4 is O or NR^{13} ;

R^4 is C_1-C_6 alkyl, C_1-C_6 alkoxy, NR^6R^7 , phenoxy, or phenyl optionally substituted with halo;

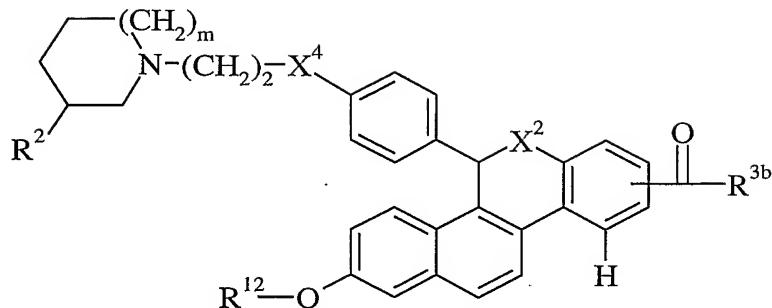
R^6 and R^7 are independently H, C_1-C_6 alkyl or phenyl;

15 R^8 and R^9 are independently H or C_1-C_6 alkyl or R^8 and R^9 may combine with the nitrogen to which they are both attached to form a morpholino, pyrrolidino or piperidino ring;

R^{10} and R^{11} are independently H or C_1-C_6 alkyl;

R^{13} is H, C_1-C_6 alkyl or $CO_2(C_1-C_6$ alkyl); and

20 R is H and X^1 is O, CH_2 or CO or R combines with X^1 to form a moiety of the formula:



wherein X^2 is O or S;

provided that if R^{12} is H, SO_2 (n-C₄-C₆ alkyl) or COR^4 , then X^4 is NR^{13} and R^{13} is CO_2 (C₁-C₆ alkyl); or an acid addition salt thereof.

5

53. The compound of claim 52 wherein R^8 and R^9 are independently H or C₁-C₆ alkyl.

54. The compound of claim 53 wherein X^4 and X^1 are O and m is 1 or 2.

10 55. The compound of claim 53 or claim 54 wherein R^{12} is SO_2CH_3 , benzyl or methyl.

56. The compound of any one of claims 53-55 wherein Y is $CH=CH$.

15 57. The compound of any one of claims 53-56 wherein the COR^{3b} moiety is at the 3- or 4-position.

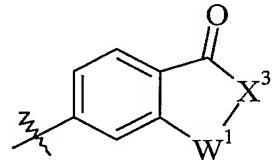
58. The compound of any one of claims 53-57 wherein the COR^{3b} moiety is at the 4-position.

20

59. The compound of any one of claims 53-58 wherein R^{3b} is NR^8R^9 and R^8 and R^9 are independently H or C₁-C₄ alkyl.

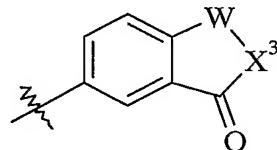
60. The compound of any one of claims 53-59 wherein R^{3b} is OR^{10} and R^{10} is H or C_1-C_4 alkyl.

5 61. The compound of any one of claims 53-60 wherein R is H and R^{3b} combines with the phenyl with which it is attached to form:



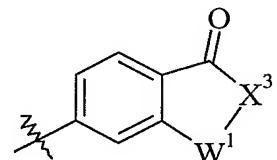
and W^1 is CH_2 and X^3 is NR^{11} and R^{11} is H.

10 62. The compound of any one of claims 53-60 wherein R is H and R^{3b} combines with the phenyl with which it is attached to form:



and R^{11} is H or C_1-C_4 alkyl.

15 63. The compound of any one of claims 53-60 wherein R is H and R^{3b} combines with the phenyl with which it is attached to form:



and R^{11} is H or C_1-C_4 alkyl.